

(PCT Article 36 and Rule 70)

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2005/000269

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-11 as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-9 received by this Authority on 29.07.2005 with letter
- nos.* _____ received by this Authority on 27.07.2005
- ☒ the drawings:
- sheets 1/2, 2/2 as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2005/000269

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-9</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>7-9</u>	YES
		Claims <u>1-6</u>	NO
	Industrial applicability (IA)	Claims <u>1-9</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
1.	Reference is made to the following documents:		
	D1: US-B1-6 236 372 (KRONBERGER RAINER ET AL) 22 May 2001 (2001-05-22)		
	D2: US-A-5 510 804 (TALTY TIMOTHY J) 23 April 1996 (1996-04-23)		
	D3: WO 93/18634 A (PERESANO LUCIANO) 16 September 1993 (1993-09-16)		
2.	<p>The present application fails to meet the requirements of PCT Article 33(1), since the subject matter of independent claim 1 does not involve an inventive step as defined by PCT Article 33(3).</p> <p>D1, which is considered to be the prior art closest to the subject matter of claim 1, describes (the references between parentheses apply to said document):</p> <p>An antenna system for an estate-type motor vehicle that has an opening rear window provided with a de-icing network and a quarter glass (figure 2), which antenna system includes:</p> <ul style="list-style-type: none"> - a first antenna including an aerial produced by screen printing onto the rear window (figure 2.1) and incorporating the de-icing network (figure 2.20), said aerial includes two vertical lines that extend symmetrically relative to the longitudinal vertical median plane of the vehicle 		

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	<p>and are placed on top of the de-icing network (see figure 2);</p> <ul style="list-style-type: none">- a second antenna including an aerial screen-printed onto the quarter glass (figure 2, antenna 1, window 6);- an electronic circuit located near each of the aerals of the first and second antenna (figure 2); <p>and such that:</p> <ul style="list-style-type: none">- the first antenna is a FM2 antenna for receiving frequency modulated radio waves in the 76 MHz to 108 MHz waveband (page 9, line 42);- the FM2 antenna comprises a ground conductor (figures 10 and 11) for grounding the FM signal. <p>Consequently, the subject matter of claim 1 differs from this known D1 in that:</p> <ul style="list-style-type: none">- the second antenna is an ANCILLARY antenna for receiving waves having a frequency of 434 MHz or 315 MHz;- the aerial of antenna FM2 comprises a ground conductor having a length of around 530 mm. <p>Claim 1 of the present application is not considered inventive (PCT Article 33(3)) for the following reasons:</p> <p>The frequencies used and the length of the ground conductor are merely some of several obvious options that a person skilled in the art seeking to solve the stated problem might select, depending on each particular case, and without an inventive step being involved.</p> <p>Moreover, as mentioned in the present application, the ANCILLARY antenna can be identical to the AM or FM aerals. An example of such an antenna is shown in figure 4 of D2. Said document even mentions the fact that the effective length of the antenna can be</p>

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	<p>adjusted very simply so as to radiate at a desired frequency (column 4, lines 21 and 22).</p> <p>It is important to note that these two features are a mere juxtaposition of features. When combined, these technical features produce no synergistic effect. None of these features is inventive and the juxtaposition of said features is not inventive either.</p> <p>3. Dependent claims 2 to 7 contain no feature which, when combined with the features of any one of the claims to which they refer, defines subject matter that complies with the PCT requirements of inventive step, for the following reasons:</p> <ul style="list-style-type: none">- claim 2: the U-shaped de-icing network is provided as an example in D3 (figure 2).- claims 3, 4, 5 and 6: all the additional technical features of claims 3 and 4 are disclosed in D1 (see figure 2). Those of claim 5 are shown in figure 4. Furthermore, the additional feature of the last claim (the antenna is an ancillary antenna) is the consequence of a particular selection that has no surprising effect. The same applies to the impedance in claim 6. <p>4. The combination of features of claims 7, 8 and 9 is not found in the prior art and cannot be derived in an obvious manner therefrom. Provided that the ground conductor of claim 7 is defined more clearly (see Box VIII, point 1), said claims appear to be novel and inventive.</p>

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The application fails to comply with the requirements of PCT Article 6, since claims 1 and 7 are unclear.

1. It is clear from page 7 of the description that the following feature is essential for the definition of the invention:

- a "screen-printed" ground plane (see Box VIII, point 2), i.e. a ground plane located on the window and not on the chassis or the latter used directly as a ground plane.

Since independent claim 1 does not contain this feature, it fails to meet the requirements of PCT Article 6 in combination with PCT Rule 6.3(b), according to which an independent claim must contain all of the technical features essential for the definition of the invention.

2. As stated below, certain features of the antenna system according to claims 1 and 7 serve more to explain the mode of producing the device than to define clearly the device in terms of technical features. The limitations that said features are intended to define do not therefore appear clearly from said claims, contrary to the requirements of PCT Article 6:

- first antenna... produced by *screen printing*;
- second antenna... produced by *screen printing*;
- *screen-printed* ground conductor.